Winter 2022 Corvallis HC Bacc Core

BI 222H	Principles of Biology: Organisms			4 HC Credit(s)
CRN : 38167	Section 001	LEC	MWF 1300 - 1350	Nate Kirk
CRN : 38168	Section 010	LAB	W 1400 - 1650	Carmen Harjoe
CRN : 38169	Section 011	LAB	R 800 - 1050	Carmen Harjoe
CRN : 38170	Section 012	LAB	F 1400 - 1650	Carmen Harjoe

Introduction to fundamental biological concepts and theories about plant, and animal physiology, evolution, structure and function, transformation of energy and matter and systems at an organismal level. PREREQS: BI 221/221H and ((CH 121 or CH 201) or (CH 231/231H and (CH 261/261H or CH 271)). Course Fee \$30. Satisfies: HC BaccCore - Biological Sciences

CH 232H	General Cher	4 HC Credit(s)		
	Register	for the LEC,	one REC, and one CH 262H LAB sectio	n
CRN : 33272	Section 001	LEC	MWF 1200 - 1250	Louis Wojcinski
CRN : 33370	Section 010	REC	T 1400 - 1450	Louis Wojcinski
CRN : 33371	Section 011	REC	R 1100 - 1150	Louis Wojcinski
СН 262Н	Laboratory fo	or Chemi	istry 232H	1 HC Credit(s)
CRN: 33273	Section 010	LAB	T 1500 - 1750	Michael Burand
CRN : 33274	Section 011	LAB	R 1200 - 1450	Michael Burand

Second course in General Chemistry sequence for Honors College students with one-year high school chemistry and acceptable aptitude test scores. This sequence examines the characteristics of molecular and atomic behavior and the way in which these influence chemical properties and reactions. PREREQS: (CH231/231H OR CH 221) AND (CH 261/261H OR CH 271 OR CH 221 OR CH 224H). COREQ: CH 262/262H or CH272. CH 232H and CH 262H must be taken concurrently. CH 231/231H, CH232/232H, and CH233/233H must be taken in order. Course Fee \$30. Satisfies: HC BaccCore - Physical Sciences

ENG 275H The Bible as Literature

4 HC Credit(s)

CRN: 39590 Section 001 LEC TR 800 - 950

Instructor(s): Gilad Elbom

Emphasizing diversity rather than unity, the Bible is a vast collection of literary genres: stories, poems, genealogies, biographies, prophesies, aphorisms, laws, letters, and many other styles. This class will focus primarily on biblical narrative. Paying attention to a variety of literary techniques, we will try to address the complexity and richness of the Bible rather than reduce it to one truth, a single message, or important lessons. In other words, our approach will be analytical rather than didactic. We will try to broaden and deepen our understanding of the Hebrew Bible and the New Testament through a careful reading of the text and a close inspection of biblical scholarship and other related texts. Ultimately, we will try to approach the Bible from as many perspectives as possible: literary, political, theological, anthropological, linguistic, historical, psychological, philosophical, feminist, structural, postcolonial, and other points of view. Satisfies: HC BaccCore - Western Culture

Introduction to Native American Studies ES 241H

4 HC Credit(s)

CRN: 40248 Section 001 LEC F 1000 - 1350

Instructor(s): Natchee Barnd

A survey of Native American cultures and history, both prior to and following contact with Europeans. Introduces the key contemporary issues and questions in the field of Native American studies. Satisfies: HC BaccCore - Cultural Diversity

HC 199 **Honors Writing** 3 HC Credit(s)

Choose one Lecture

CRN: 32050 Section 001 LEC MWF 1000 - 1050 CRN: 32927 Section 003 LEC TR 1000 - 1120

Instructor(s): Eric Hill

Becoming a critical reader and thinker promotes clear writing and verbal communication. You will hone your skills in a discussion/debate format, along with frequent in-class writing assignments and presentations. You will also further develop your abilities to be a critical reader. We will be examining texts from many disciplines and on a variety of topics; you will also bring in examples for discussion. The research paper, which includes both formal documents and informal writing, will focus on an ethical/controversial issue or current research within your discipline; this will include field and library research. PREREQ: WR 121/121H. Satisfies: HC BaccCore - Writing II

History of Western Civilization **HST 101H**

4 HC Credit(s)

CRN: 40466 Section 001 LEC TR 1400 - 1550

Instructor(s): Kevin Osterloh

Provides an awareness and understanding of the Western cultural heritage. Stresses the major ideas and developments that have been of primary importance in shaping the Western tradition. Covers the Ancient World to 1000 A.D.

Satisfies: HC BaccCore - Western Culture

HST/PHL/REL 210H Religion in the United States

4 HC Credit(s)

Choose one Lecture section. These are cross listed, so you should only register for one.

HST 210H CRN: 39594 Section 001 LEC TR 1400 - 1550 PHL 210H CRN: 39601 Section 001 LEC TR 1400 - 1550 **REL 210H CRN**: 39600 Section 001 LEC TR 1400 - 1550

Instructor(s): Amy Koehlinger

A thematic overview of the historical study of religion in the United States, with an eye toward ways that social and cultural contexts have shaped the religious experience of Americans in different places and times. Surveys a wide array of religious movements, groups, and individuals from the colonial period to present. Satisfies: HC BaccCore -

Difference, Power, Discrimination

HST/REL 425H The Holocaust in its History

4 HC Credit(s)

Choose one Lecture section. These are cross listed, so you should only register for one.

HST 425H CRN: 39595 Section 001 LEC MW 1000 - 1150

REL 425H CRN: 39599 Section 001 LEC MW 1000 - 1150

Instructor(s): Kara Ritzheimer

An inquiry into the causes, course, and impact of the Holocaust. The general theme of anti-Semitism in European history is explored for background. Topics discussed for comparative purposes include anti-Semitism in American history; other episodes of mass murder in the 20th century. **Satisfies: HC BaccCore - Contemporary Global Issues**

HSTS 417H History of Medicine

4 HC Credit(s)

CRN: 36951 Section 001 LEC TR 1000 - 1150

Instructor(s): Linda Richards

History of medical theory and the changing role of the physician; internal development of medicine as a discipline as well as a profession; relationship of medicine's development to general changes in science and culture. **Satisfies: HC BaccCore - Science, Technology, Society**

MUS 101H Music Appreciation: A Survey

3 HC Credit(s)

CRN: 36046 Section 001 LEC MWF 900 - 950

Instructor(s): Kimary Fick

Dealing primarily with the Western classical tradition, the course focuses on developing perceptive listening skills through the study of musical forms and styles. This course will involve greater student engagement through a variety of teaching methods. In addition to traditional lectures, students will participate in active, small-group discussions; present group presentations; write short, in-class responses to readings; attend local concerts; and write a concert review.

Satisfies: HC BaccCore - Literature & The Arts

PH 213H General Physics with Calculus

4 HC Credit(s)

Register for the Lecture and one Lab

 CRN: 37191
 Section 001
 LEC
 MWF 1300 - 1350

 CRN: 37239
 Section 010
 LAB
 T 800 - 950

 CRN: 37192
 Section 020
 LAB
 T 1600 - 1750

Instructor(s): Weihong Qui

A comprehensive introductory survey course intended primarily for students in the sciences and engineering. Topics include mechanics, wave motion, thermal physics, electromagnetism, and optics. Elementary calculus is used. PREREQS: MTH 254/254H and PH 212/212H. Satisfies: HC BaccCore - Physical Sciences

PH 222H Recitation for Physics 212

1 HC Credit(s)

CRN: 32281 **Section** 001 REC **T 1100 - 1150**

Instructor(s): David Roundy

Honors recitation reserved for HC students enrolled in lecture/lab section of PH 212 or PH 212H. One-hour weekly session for the development of problem-solving skills in calculus-based general physics. COREQ: PH 212/212H. **Graded:**

P/N. Satisfies: HC BaccCore - Physical Sciences

PH 223H Recitation for Physics 213

1 HC Credit(s)

CRN: 32280 **Section** 001 REC **R 1100 - 1150**

Instructor(s): Guenter Schneider

Honors recitation reserved for HC students enrolled in lecture/lab section of PH 213 or PH 213H. One-hour weekly session for the development of problem-solving skills in calculus-based general physics. COREQS: PH 213/213H.

Graded: P/N. Satisfies: HC BaccCore - Physical Sciences

PH 313H Energy Alternatives

3 HC Credit(s)

CRN: 36048 Section 001 LEC MWF 900 - 950

Instructor(s): Randall Milstein

After completing PH 313H, students will be able to define energy and power, and to list the basic forms of energy, from the viewpoint of physics, and classify energy based on the way power is generated (renewable and non-renewable energy sources) such as hydropower, wind power, geothermal power, solar power, ocean wave power, nuclear power. Students will understand the main types of hydropower plants, and calculate the power wind carries, and know the efficiency and advantage/disadvantages of several types of wind turbines. Students will understand the two major techniques of converting solar power to electric power (concentrated solar power plants and photovoltaic panels); about geothermal resources and how Earth's heat is harnessed for generating power; about ocean wave power converted to electricity; about electric cars, high-capacity batteries, fuel cells, and the infrastructure needed to make electric vehicles competitive to gasoline powered transportation; about biofuels and converting biomass into gasoline-like and diesel-like products; about sending electric power over long distances. Students will know the global distribution of major fossil fuels, and the approximate time before these non-renewable resources run out.

Satisfies: HC BaccCore - Science, Technology, Society

PHL/REL/HST 210H Religion in the United States

4 HC Credit(s)

Choose one Lecture section. These are cross listed, so you should only register for one.

 HST 210H CRN: 39594
 Section 001
 LEC
 TR 1400 - 1550

 PHL 210H CRN: 39601
 Section 001
 LEC
 TR 1400 - 1550

 REL 210H CRN: 39600
 Section 001
 LEC
 TR 1400 - 1550

Instructor(s): Amy Koehlinger

A thematic overview of the historical study of religion in the United States, with an eye toward ways that social and cultural contexts have shaped the religious experience of Americans in different places and times. Surveys a wide array of religious movements, groups, and individuals from the colonial period to present. **Satisfies: HC BaccCore** -

Difference, Power, Discrimination

PSY 202H General Psychology

4 HC Credit(s)

CRN: 38200 Section 001 LEC TR 1200 - 1350

Instructor(s): Juan Hu

Scientific study of behavior and experience. Motivation and emotion; personality; social psychology, human development, psychopathology and psychotherapy. **Satisfies: HC BaccCore - Social Processes & Institutions**

REL/HST 425H The Holocaust in its History

4 HC Credit(s)

Choose one Lecture section. These are cross listed, so you should only register for one.

 REL 425H CRN: 39599
 Section 001
 LEC
 MW 1000 - 1150

 HST 425H CRN: 39595
 Section 001
 LEC
 MW 1000 - 1150

Instructor(s): Kara Ritzheimer

An inquiry into the causes, course, and impact of the Holocaust. The general theme of anti-Semitism in European history is explored for background. Topics discussed for comparative purposes include anti-Semitism in American history; other episodes of mass murder in the 20th century. **Satisfies: HC BaccCore - Contemporary Global Issues**

REL/HST/PHL 210H Religion in the United States

4 HC Credit(s)

Choose one Lecture section. These are cross listed, so you should only register for one.

 HST 210H CRN: 39594
 Section 001
 LEC
 TR 1400 - 1550

 PHL 210H CRN: 39601
 Section 001
 LEC
 TR 1400 - 1550

 REL 210H CRN: 39600
 Section 001
 LEC
 TR 1400 - 1550

Instructor(s): Amy Koehlinger

A thematic overview of the historical study of religion in the United States, with an eye toward ways that social and cultural contexts have shaped the religious experience of Americans in different places and times. Surveys a wide array of religious movements, groups, and individuals from the colonial period to present. **Satisfies: HC BaccCore** - **Difference, Power, Discrimination**

WGSS 240H Gender, Race, and Sport

3 HC Credit(s)

CRN: 40249 Section 001 LEC T 1600 - 1850

Instructor(s): Susan Shaw

Focuses on sport as a gendered and racialized institution. Drawing from cultural, psychosocial, and political perspectives students examine intersections of gender with race, sexual identity, social class, ability, age, and religion. **Satisfies: HC BaccCore - Social Processes & Institutions**

WR 121H English Composition

3 HC Credit(s)

CRN: 36955 Section 001 LEC TR 1200 - 1350

Instructor(s): Brandy St. John

Introduction to critical thinking, the writing process, and the forms of expository writing. Intensive writing practice, with an emphasis on revision. WR 121H is NOT restricted by last name. Satisfies: HC BaccCore - Writing I

WR 327H Technical Writing

3 HC Credit(s)

CRN: 38116 Section 400 online

Instructor(s): Brandy St. John

Continued practice in writing with an emphasis on the rhetorical and critical thinking demands of writers in scientific and technological fields. This is an Ecampus course. Tuition rates for Ecampus courses are different than on-campus courses and can be found at ecampus.oregonstate.edu/services/tuition. PREREQS: WR 121/121H. RESTRICTIONS: Minimum of sophomore standing required. Satisfies: HC BaccCore - Writing II

WR 362H Science Writing

3 HC Credit(s)

CRN: 40594 Section 001 LEC TR 1000 - 1120

Instructor(s): Saskia Madlener

Students learn and practice the conventions for writing scientific material for a variety of audiences. Involves writing and research assignments, multimedia presentations, lecture, and in-class and online activities. PREREQS: WR 121/121H.

Satisfies: HC BaccCore - Writing II

2 HC Credit(s)

Winter 2022 Corvallis HC Colloquia

BB 407H Learn to Love Your Lying Eyes (and Brain)

CRN: 39617 **Section** 001 SEM **F 1000 - 1150**

Instructor(s): Kenton Hokanson

We humans can pick a single voice out of a noisy room, instantly recognize a childhood friend, and esaliy raed mespesilld wrods. Our brains are amazing! Why, then, was the world briefly paralyzed in 2015, when we couldn't even agree whether "The Dress" was white and gold or blue and black? The answer is that our brains are messy, complicated machines, remarkably good at many things, but easily fooled by others. In this class, we will explore sensory illusions that reveal the limits of our brains, then discuss research in neuroscience and psychology that helps explain our experiences. We will practice analyzing and creating scientific writing, and presenting it to peers. Finally, we will reflect on how our knowledge of our brains' imperfections can inform our approach to the debates and challenges of society today. This course will be a fun and active introduction to our human brains. It assumes no previous neuroscience or biology coursework. **Graded: P/N. Satisfies: HC Colloquia**

BOT 499H Poetry and Landscape

1 HC Credit(s)

CRN: 40011 **Section** 001 SEM **W 1400 - 1550**

Meets Weeks 1-5 Only

Required field trip Saturday, January 22, 2022 8 am to 12 noon

Instructor(s): Donald Zobel

Some poets are keen observers of nature. Lovers of nature and scientists can learn from reading their poetry, which helps people to see nature in new ways. To appreciate such poetry fully, a reader needs to understand the objects and processes the poems describe. In this class, we will seek to educate ourselves about the authors' subjects sufficiently to appreciate their presentation of nature. We will read poetry, both outside and during class, about the natural landscape, plants and animals, and ecological phenomena, especially in the northwestern US. We will identify and discuss the natural phenomena that are represented by the poetry, and the insights into nature that the poets provide. We will select some phenomena for detailed study and discussion. We will visit and discuss the history and properties of a Willamette Valley landscape, and identify in it the types of phenomena represented by what we have read, which we could use in our writing about the place we live. We will write about what we see and read. Meets Weeks 1-5 Only. Required field trip Saturday, January 22, 2022 8 am to 12 noon. Course Fee: \$5. Graded: P/N. Satisfies: HC Colloquia

ENSC 407H / Introduction to Traditional Ecological Knowledge (TEK) HC 407

2 HC Credit(s)

Choose one section. These are cross listed, so you should only register for one.

ENSC 407H CRN: 39587 **Section** 400 **online HC 407 CRN**: 39586 **Section** 402 **online**

Instructor(s): Samantha Hatfield

The goal of this course is to understand Traditional Ecological Knowledge (TEK) and sustainability practices from a Native American perspective, focusing on the Pacific Northwest but also addressing other Tribes nationally. The emphasis will be on techniques the Siletz have implemented and continue utilizing, but we will also incorporate other techniques from tribal perspectives in local and national areas, as well as how these utilizations coincide with agencies on local, state, and federal levels. This class will focus on how state and federal guidelines, laws, and regulations affect and implement tribal policies and tribal members. This course promotes TEK as a viable sustainability technique and teaches students and community members about further understanding TEK, in cooperation through agencies and policies such as treaties and NAGPRA on Indigenous lands, traditional areas, and cultural practices. This is an Ecampus course. Tuition rates for

HC 299 Leadership: Two Perspectives

1 HC Credit(s)

CRN: 40659 Section 001 SEM M 1400 - 1550

Meets Weeks 1-5 Only

Instructor(s): Toni Doolen & Scott Ashford

Today's organizations are complex, utilizing structures that cross cultural, national, and functional boundaries. Leaders in organizations must be able to navigate these complex structures, while understanding that organizations are comprised of individuals. Students in this course will examine different aspects of leadership and explore multiple perspectives on what creates/constitutes an effective leader. As in past offerings, this course will specifically address leading in crisis. Students will be provided multiple opportunities to reflect on how to develop and grow their own leadership capacity. This course will be co-taught by Dr. Ashford, Dean of the College of Engineering and Dr. Doolen, Dean of the Honors College. **Meets Weeks 1-5 Only. Graded: P/N. Satisfies: HC Colloquia**

HC 407 Cultural Considerations for International Service (Building Hope) 1 HC Credit(s)

CRN: 39604 Section 001 SEM W 1600 - 1650

Instructor(s): David Kovac

This course will examine the notion of culture as a context for international service work and volunteering. We will explore culture as a primary determinant of service success, being careful to recognize potentially harmful aspects of "voluntourism" and related perspectives. We will also delve into the primary and secondary impacts of service work and what social, personal, and educational transformations can be expected, both to the communities served and the volunteers involved. **Satisfies: HC Colloquia**

HC 407 Race, White Supremacy, and the State of Oregon 2 HC Credit(s)

CRN: 36042 **Section** 002 SEM **TR 900 - 950**

Instructor(s): Elizabeth Barstow

This course offers insight into the development of racial categories and racial discrimination in the United States and, more specifically, within Oregon. In this class, students will study the history of racism in the United States and, more specifically, within the state of Oregon. In addition to reading texts written by historians, students will also read a number of articles published by contemporary media, and they will also read some documents (for example, the reports surrounding the renaming of buildings at OSU) pertaining to OSU. We will also have some visits from guest speakers in this class; the speakers will address topics such as racism in Corvallis, strategies for being an activist, and ways that OSU is making efforts to deal with the history of racism. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 God, Pain, and the Problem of Evil: An Introduction to CS Lewis 2 HC Credit(s)

CRN: 32799 Section 003 SEM M 1600 - 1750

Instructor(s): Gary Ferngren

C. S. Lewis (1898-1963), Oxford don, novelist, and literary critic, was one of the most gifted and popular theological writers of his generation. Lewis dealt in his philosophical and imaginative works with some of the most basic and perennial moral and religious questions. The format will consist of discussion based on selected readings from four well-known books of C. S. Lewis. I will encourage the expression of a variety of points of view and help students both to analyze Lewis's ideas and to express their own opinions in a rational and informed manner. Lewis is provocative and his writings lend themselves to discussion and debate. A writing component is included in the form of a short paper of five or six pages based on the assigned reading for the course. The topic: 'How does C. S. Lewis develop and illustrate in his fictional works the themes that he discusses in his philosophical works?' It will be graded on both content and style. Verbal communication skills will be cultivated by the discussion format. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 The Hidden History of Women at Oregon State University 2 HC Credit(s)

CRN: 39605 **Section** 004 SEM **T 1000 - 1150**

Instructor(s): Tiah Edmunson-Morton & Chris Petersen

Women have been fundamental to OSU's story since it was founded in 1868, but too often their achievements, struggles and day-to-day experiences have been omitted from mainstream accounts of the university's history. This class seeks to uncover pieces of this rich but hidden historical narrative by focusing on the themes and individuals who have shaped the academic and social milieu for women at OSU for more than 150 years. Specific topics include the rise and fall of Home Economics as the predominant form of academic engagement for women faculty and students; the strict formal rules and social controls that traditionally governed women's lives on campus; the hugely significant impact made by Title IX on all manner of campus activities beginning in the mid-1970s; and the struggle against sexism and sexual violence that was spearheaded by the Women's Center around the same time, and that reached its crescendo in the late 1990s. Students in the class will also contribute to the historical record by conducting an oral history interview with a woman who is somehow connected with OSU, contextualizing that interview, and making it available on a dedicated web portal. Taught by two archivists and experienced oral historians, the class takes a combined approach to instruction, making use of lectures, historic images, film clips, discussion and document analysis to explore topics related to women's history, as well as the practice and theory of oral history. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Have Rocket Will Travel

2 HC Credit(s)

CRN: 38173 **Section** 005 SEM **M 1000 - 1150**

Instructor(s): Stephen Atkinson

Are you ready to go to space? My goal for this course is to lead our exploration of the history, motivations, physics and fantasy behind rockets and space travel. From Rocket Science 101, to the Space Race, US space program (Apollo, Shuttle, Artemis) and future space missions, this course will inspire you with both the fiction and realities of leaving the green Earth for the emptiness of Out There. My other goal is to give you an introduction to different means of artistic expression, and demonstrate how you can convey scientific concepts in creative ways. We will meet for a single class session each week. Typical class time will involve discussion on the weekly topic, student presentations, and hands-on activities. Assessment will be through creative assignments that include: short oral presentations, art creations using different media, and written reflections and critiques posted to Canvas. There will be no mid- or final- exams, but participants will have to submit their assignments for grading during the term.

This colloquium class should satisfy anyone who is curious about rockets and space, and wants to experience a synthesis of academic and artistic learning. If you don't have a science or art background - don't worry! Everyone is welcome, and all activities will be demonstrated. We will all benefit from hearing and seeing the variety of experiences and skills you each bring to the class. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Historical Fictions and Fictional Histories

2 HC Credit(s)

CRN: 35296 Section 006 SEM R 1000 - 1150

Instructor(s): Thomas Bahde

We live in a culture of fake news, alternative facts, deepfakes, and the constant spinning of personal narratives, so perhaps it is comforting to realize that the line between fact and fiction has never been especially stable. Concepts of authorship, authority, and authenticity today seem more important -- and more fluid -- than ever. The stakes of establishing the "real" seem particularly high, but even our own experiences, memories, histories, and narratives are unique and ever-changing, making it hard to settle on any single version of reality, past or present. This course uses historical stories -- factual and fictional -- to examine an enduring problem: how to craft "true" stories from an endless array of sources, experiences, and interpretations -- a question at the core of both Literature and History, and increasingly at the center of public discussion. Our examination of this and other big questions takes the form of weekly readings and discussions in a format similar to a book club. **Graded: P/N. Satisfies: HC Colloquia**

1 HC Credit(s)

HC 407 Creative Practice

CRN: 39613 **Section** 007 SEM **F 1100 - 1150**

Class meets in Weeks 1, 2, 4, 6, 8, and 10 only

Instructor(s): Thomas Bahde

This course provides a for-credit opportunity for students to devote time during the busy academic term to creative projects. Participants will work in their own time on any of their own creative work, broadly defined, and may use the course to continue ongoing work in progress, begin new projects, or explore their own creativity generally. Biweekly meetings and Canvas check-ins provide participants with a loose structure to explore the practice, theory, and history of human creativity in the context of their own work, with emphasis on providing the time and intention for students to engage their own creativity as a consistent, mindful, and beneficial practice. Class meets in Weeks 1, 2, 4, 6, 8, and 10 only. Graded: P/N. Satisfies: HC Colloquia

HC 407 Science, Ethics and Star Trek

1 HC Credit(s)

CRN: 35297 Section 008 SEM W 1400 - 1450

Instructor(s): Diana Rohlman

"What you're doing isn't self-defense. It's the exploitation of another species for your own benefit. My people decided a long time ago that that was unacceptable, even in the name of scientific progress." Captain Kathryn Janeway, Starfleet. To this day, while we have the ability to clone animals (and therefore humans), the ethical and moral ramifications have tempered many scientific advances. The fictional universe of Star Trek often explores the nexus of advanced technologies and the resultant ethical considerations. This class will use episodes from the Star Trek universe, paired with real-life case studies to delve into the seen and unforeseen consequences of science and medicine. We will go where few have gone before, using Star Trek as a lens to understand the role of ethics in biological and clinical research. Engage! **Satisfies: HC Colloquia**

HC 407 Re-Engineering the Human Body using Robotics

2 HC Credit(s)

CRN: 39606 **Section** 009 SEM **MW 1100 - 1150**

Instructor(s): Ravi Balasubramanian

This course provides an overview of how to study the human body using robotics principles and then utilize that understanding and robotics technology to improve human function and quality of life. The course uses fundamental hand and arm movements as an example to understand the mechanisms of the human motor system and control. The course provides an overview of the anatomy of muscles, sensors, spinal cord, and the brain, followed by the functional role played by each component. Then all the components are integrated to study feedback control dynamics---that is, how the sensors measure movement, which then impacts how the brain and spinal cord respond. Using classic studies, the course covers classic to modern theories of how the nervous system may control movements. Advanced topics covered include brain and muscle adaptation, how movements are represented, cognition, and rehabilitation and augmentation techniques for motor-impaired patients. The course will also have a demonstration of research that uses robotics-inspired implantable mechanisms to restore or improve human function. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Electric Nature 2 HC Credit(s)

CRN: 35299 **Section** 010 SEM **F 1200 - 1350**

Instructor(s): Chet Udell

We've heard the age-old saying "If trees could talk, what would they say?" For this course, we will identify one or two dynamic natural sites and translate natural phenomenon like light, temperature, humidity, wind speed, soil moisture, the movement of trees swaying, and rainfall into data using tiny wireless sensors. We'll observe this data unfold in real-time online. Then, we will collect sounds and video from our natural sites and use digital story telling to translate this data into something compelling for people to enjoy. Live data from the environment will interact with the sound and video we collect, enabling the environment itself to influence what is seen hand heard. What if a tree swaying in the wind created music as it danced? What if the temperature of the day determined how warm or cool ambient light was in your room? We'll explore all kinds of exciting cross-modal relationships between our environment, data, and digital sound and art in this course.

You will use, combine, and learn scientific, engineering, and creative practices to create interactive natural environments capable of telling unique stories using sound, video, and light. You will be introduced to a variety of concepts including: Environmental sensors, Wireless data access, IoT (Internet of Things), Audio recording, Video recording, Interactive media using MaxMSP, Data Visualization and Sonification, Digital Storytelling. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Sacred Places and Links to Ancient Astronomy 1 HC Credit(s)

CRN: 33607 **Section** 011 SEM **T 1300 - 1350**

Instructor(s): Randall Milstein

A survey of sites, megaliths, caves, mountains, and structures considered sacred to human cultures. What do the caves of Lascaux, France; the pyramids of Giza, Egypt; and the temples of Teotihuacan, Mexico have in common? Why are Stonehenge and Calanish in Great Britain significant to Celtic culture and modern geologists and astronomers? Mecca, Rapa Nui, Angkor Wat: why are these loci for our curiosity and philosophical attention? The one thing all these sites, and many more, have in common is a link to ancient astronomical observations. This colloquium is not a survey of competing spiritual philosophies, but a discussion of what makes such sacred sites significant historically, scientifically, and culturally, especially as they relate to ancient astronomy. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 The Science of Science Fiction

1 HC Credit(s)

CRN: 33608 Section 012 SEM R 1300 - 1350

Instructor(s): Randall Milstein

The good, the bad, the inventive, and the absolutely awful examples of "science" portrayed in science fiction films, television shows, comic books, and literature. Aliens, lightsabers, space battles, gravity drives, warp speed, laser beams, star gates, and worm holes; what's real, what's a possibility, what's speculation, and what is impossible. There is a codependency between science and science fiction; many scientists and engineers acknowledge science fiction helped spark their imaginations of what might be possible. And science fiction authors are inspired by future science possibilities, but how do novel scientific ideas get into SciFi authors' heads in the first place? Discussion and viewing of some of our favorite and least favorite science fiction, so we know what to look for while enjoying modern society's best loved metaphors and mythologies. **Graded: P/N. Satisfies: HC Colloquia**

2 HC Credit(s)

HC 407 Psychology of Personal Excellence

CRN: 39607 Section 013 SEM R 1200 - 1350

Instructor(s): William Massey

This course, informed by research on peak "performers" across domains, is an experiential seminar in the psychology of performance enhancement and personal excellence. Through multiple sources of evidence, students will identify and discuss characteristics of peak performance. Through experiential learning, discussion of books and film, as well as observations of others in performance situations, students will identify and apply strategies / techniques designed to facilitate their own peak performance and personal excellence. **Satisfies: HC Colloquia**

HC 407 Materials, Technology, and Human Civilization

2 HC Credit(s)

CRN: 39609 **Section** 015 SEM **W 1400 - 1550**

Instructor(s): David Cann

Technology supports human civilization by addressing its "basic needs" of food, shelter, and clothing. Technology is itself enabled by the materials that are available to be exploited by human civilizations. On a fundamental level, those materials and the technologies they enable define what a human society can and cannot do. Therefore, we often define eras of human civilization according to the materials they had at their disposal, e.g. the stone age, the bronze age, etc., because these materials help describe the quality of life for those societies. In this colloquium, we will explore the complex relationship between materials, technology and human civilization through the lens of history. Using readings and discussions, we will analyze different eras of human history to understand the positive and negative impacts of new materials and technologies on human civilization. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Materials, Art, & Culture

1 HC Credit(s)

CRN: 39610 Section 016 SEM M 1400 - 1450

Instructor(s): Melissa Santala

Throughout the course of human history, new materials (metals, glasses, ceramics, polymers, dyes, pigments, semiconductors, etc.) have been developed and engineered to serve human needs and aspirations. A new material can enable a diverse array of activities, e.g. steel is incorporated in equipment for warfare and farming, as well as sculpture and architecture. As new materials become available, artists and architects have incorporated them into their repertoire. In this colloquium we will consider how new materials have enabled different forms of expression by artist, even if the material was not originally developed to be used by artists. Using readings and discissions, we will analyze different eras of human history where major development in a class of materials have impacted creative expression to understand the impacts of new materials on human culture. This colloquium will incorporate at least one session devoted to the microscopic investigation of materials to give the students a greater sense of how engineered materials (which includes artists materials) are structured and how their structure impacts their function. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Semiotics 1 HC Credit(s)

CRN: 36192 **Section** 017 SEM **F 1300 - 1350**

Instructor(s): Eric Hill

How would you interpret a "thumbs up" sign? Does it mean approval? Time to surface? Someone needs a ride? When it comes to signs, context can be everything. Semiotics began as a study of linguistics, but has grown to include the study of different sorts of signs (icons, indices, symbols), of how meaning is communicated in various ways. We will be looking at examples of signs, systems of sign making, cultural contexts, miscommunication, and more. Our age of visual literacy makes semiotics more significant (yes, that was a pun) than ever before. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Translations 2 HC Credit(s)

CRN: 35300 Section 018 SEM MW 1300 - 1350

Instructor(s): Eric Hill

This course will examine the various processes of translation, literally and figuratively. We perform acts of translation whenever we read, write, listen, or speak. Translation is not just restricted to deciphering a foreign language; it also applies to understanding jargon, colloquialisms, slang, euphemism, idiomatic expressions, gestures, and images, and more. Students will look at how we use and think (or sometimes how we don't think) about translating various forms of communication. We will begin with some fundamental concepts that will include etymology, grammar, dialect versus language, and some historical background of the evolution and commonality of languages. Since we will be looking at the concept of translation in this broad sense, students need not necessarily speak a language other than English to take this class. In fact, we will also be discussing the various Englishes we all speak. Students will be asked to critically examine examples of translation and writings about translation. They will write about and present examples of how language works in a variety of contexts. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Illegitimate Music: Improvisation and Original Instrumentation 2 HC Credit(s)

CRN: 39611 **Section** 019 SEM **W 1000 - 1150**

Instructor(s): John Campbell

In this course, we'll explore the creative and expressive possibilities offered by "illegitimate music": music produced without regard to genre or formal conventions, often improvised and performed in nonprofessional settings. We'll study examples of such music, and we'll perform original music on self-made instruments in group contexts. Here "illegitimate" does not have a negative connotation; it simply denotes musical expression not sanctioned by the music academy or the entertainment industry. Thus this is a course for the "untrained" (although formally trained musicians are certainly welcome to participate): it is not a course in academic music theory or composition. This course does not regard music as a product, but rather emphasizes music as process and permission for free and authentic expression. Anyone who desires to create original music can participate. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Philosophy and Happiness

2 HC Credit(s)

CRN: 40611 **Section** 020 SEM **M 1200 - 1350**

Instructor(s): Marta Kunecka

We all have a desire to be happy. Is human need for happiness causing us to suffer while looking for an unobtainable illusion or is this desire substantial and necessary to live a fulfilled life? What is it that we are looking for? What, in fact, is happiness—can it even sustain a definition? In this course we will immerse in the wisdom of some of the greatest philosophers, and search for answers which can become guidelines for life. By closely examining the thought of a few chosen Western and Eastern thinkers as well as analysis of studies emerging from the field of positive psychology, we will explore and discuss different ideas of happiness in order to find its essence. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Exploring the History of Commerce through Board Games 2 HC Credit(s)

CRN: 39612 Section 022 SEM R 1400 - 1550

Instructor(s): Dennis Adams

What can board games teach us about human interaction throughout time? Let's find out! In this class we will explore the economic and historical themes of various Euro-style board games by actually playing selected games in class. Expect self-directed research, informal presentations, playful debate, and reflective writing. This class is intended to be fun and highly interactive. We'll alternately educate, learn from, impress, and oppress (as games occasionally demand) each other, all in a spirit of mutual respect and curious exploration. **Graded: P/N. Satisfies: HC Colloquia**

HC 407

Because It's There (and looks fun): Survival as Entertainment

2 HC Credit(s)

CRN: 39614

Section 023

SEM

W 1200 - 1350

Instructor(s): Rob Drummond

Humans crave adventure, pushing our bodies and wills to the limits, testing ourselves against forces much larger than ourselves. Confronting such forces often brings us to the brink of destruction. When things inevitably go wrong, who lives and who dies? Why? In this course we will consider these questions as we examine accounts of survival, of extreme fights with nature. What is it about modern American life that compels some people to seek out danger and a very real and ready risk of self-annihilation? Why do otherwise rational people take such extraordinary risks when no imperative exists beyond mere entertainment? Surely our forebears—many of whom fought every day just to stay alive in a truly dangerous landscape—would think this behavior absurd and irresponsible, as would any number of people around the world who don't live in such a relatively safe environment. Who would so needlessly risk life in a time and place where staying alive is so easy? **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Last Year Experience

2 HC Credit(s)

CRN: 35035

Section 024

SEM

T 1000 - 1150

Instructor(s): Don Johnson

The Last Year Experience seminar focuses on life after college. Often we view life after college as a career, but a career is only a small part of life after college. Life after college might include; a new town in a new state, a new apartment, finding a grocery store, a doctor, a health club, a church, a bar, a new neighbor and the critical one - friends. Graduating students often have concerns about friendships. "What will happen to my college friends, will I ever see them again, how will I make new friends?" The reality is many of your very best life friends are people you have not yet met. You will most likely maintain a rich relationship with a group of college friends and gather with them when possible, but you will also grow new significant relationships. For many, you will find your life partner after college, some of you may have children, most of you at some point will deal with aging family members, and most of you will wonder, "what is my purpose?"

While some of these may seem daunting, consider this; you are going to succeed at making it through COVID 19. What might be more difficult? Your college years will forever be punctuated by COVID 19 and we have no idea yet what that will mean. This description of life after college may paint a scary future, but it is also a time when you can define how you want to live and experience life. It is a time when you can read a book for fun, investigate new places and ideas, learn how to do something you always wanted to learn, find a role in your community, examine life with old friends and new friends, pay ahead when possible, ride the river rapids, take a pottery class or get a dog and enjoy a career that makes a difference. Graded: P/N. Satisfies: HC Colloquia

HC 407 Technology and the Good Life

2 HC Credit(s)

CRN: 36950 **Section** 026 SEM **R 1400 - 1550**

Instructor(s): Kenneth Funk

We all seek the Good Life, a life wherein our material needs are met and certain higher goods are realized, and, for many of us, technology has become a chief, if not the pre-eminent, means to it. But technology can also be an impediment to the Good Life and the roots of this ambivalent nature of technology may lie in our own fallibilities, mental and moral. In this Colloquium, we will discuss the Good Life, why technology can be both means and impediment to it, and how to make technology more of the former and less of the latter. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Earning Your Wings: Private Pilot Ground School

2 HC Credit(s)

CRN: 38179 **Section** 027 SEM **R 1600 - 1750**

Instructor(s): Vincent Remcho

Learning to fly is something that many of us dream of yet few of us capitalize on. As of the end of 2017, there were an estimated 609,000 active, certificated pilots in the US: of the US population of 327 million people, fewer than 0.2% are pilots! Regardless of whether your drive to learn more about aviation and/or become a pilot is purely for enjoyment, for personal travel, or to lead to a career, the process starts in the same way for all of us: with ground school. This course will equip you to take and pass the FAA's Private Pilot Written Exam, indicating that you have completed ground school. Your next step will be to start flight training, which you can do locally with the Oregon State Flying Club if you choose. Class will meet once per week for one hour, and you will have 1-2 hours of additional online work to do on your own schedule, consisting of some reading, practice problems, and video tutorials. Class time will be invested in presentation of key aviation, navigation, and communication topics with discussion. In week 7 you will take a practice FAA written exam to demonstrate your preparedness to register to take the actual test in an FAA testing center locally. (Taking the FAA written is not required to pass the class.) **Graded: P/N. Satisfies: HC Colloquia**

HC 407 What Is Creativity?

2 HC Credit(s)

CRN: 37301 **Section** 028 SEM **M 1400 - 1550**

Instructor(s): Jeremy Townley

When we think about creativity, most of us privilege art: painting, sculpture, literature, and film. If we think a little harder, we might include dance, opera, photography, symphonic music, and theater, among other highbrow art forms. Yet why do we usually confine notions of creativity to the fine arts? Don't popular art (graphic novels, Hollywood movies, pop music, public graffiti-murals), not to mention other domains (architecture, computer science, engineering, math, physics), demand similar types of creativity? Is it possible to generalize patterns of thought and/or behavior from one creative endeavor to another? We will explore these and other questions through readings and films by creative practitioners and scholars, short written reflections, small-group and class discussions, informal presentations, a short synthesis essay, and a final creative project. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Learning Through Play

2 HC Credit(s)

CRN: 38180 Section 029 SEM TR 900 - 950

Instructor(s): Hannah Rempel

Likely you have noticed that most people would much rather play a game than sit in class. Games motivate people to learn in new ways; games are engaging; and games encourage learners to try something new without fearing failure. Educators know this and have created many educational games (some admittedly more fun than others). But can all games teach us something? In this class we'll explore how different games can encourage learning. We'll examine which types of games help us learn best, we'll research what learning scientists know about games, and we'll test games to see how well they stack up to our fun and learning criteria. Based on what we learn, we'll even create some games of our own. And yes, we'll play games along the way! **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Imaging the Universe

1 HC Credit(s)

CRN: 36254 **Section** 030 SEM **M 1700 - 1750**

Instructor(s): Tom Carrico

Astrophotography will be the focal point for discovering the entire spectrum of the universe. Using your own camera, one you borrow from campus SMS, or a remote controlled telescope, you will be able to image the universe. Instruction will be given on how to process the images using software available for free. Your images will be used along with data from other sources like larger optical telescopes, radio telescopes, x-ray among others to reveal all the universe has to offer. There will be numerous opportunities to take images with a DSLR on clear evenings near campus (day/time flexible with alternative options based on your schedule). We will also have access to multiple nights with a remote controlled telescope to image the universe with even finer detail. Connection to this telescope will be via Zoom. It is up to you to decide if you want to use a DSLR, telescope or both! At the end of the class, you will have images you captured using a variety of image capture and processing technologies. **Graded: P/N. Satisfies: HC Colloquia**

HC 407 Energy IQ

2 HC Credit(s)

CRN: 38807 Section 031 SEM TR 1600 - 1650

Instructor(s): Skip Rochefort

The Energy landscape is dynamic! We will take both a qualitative and quantitative look at energy resources and uses in the United States. We will consider how energy is generated or obtained and consumed in the US. We will also explore the global implications of energy use and consumption. We will examine predominant and emerging technologies on both the resource and consumption sides. We will also examine the role of ethics, values, and public policy in influencing choices regarding energy use. Students will participate in and lead discussions, give presentations, and generate a personal energy philosophy/statement. **Satisfies: HC Colloquia**

HC 407 Soundscape Ecology

1 HC Credit(s)

CRN: 38805 **Section** 032 SEM **F 1400 - 1550**

Meets Weeks 1-5 Only

Instructor(s): Dana Reason

An introduction to sound in the natural and human-made world using creative applications for analysis, sound studies, and more. Topics will include: the sound health of the planet; acoustic ecology; data to sound translations; multi-modal listening; and discovering the importance of sound in research in the fields of science, the arts, architectural and industrial engineering, and bio-health fields. Finally, students get to experience and discover the concept and practice of soundscape ecology and sonification. **Meets Weeks 1-5 Only. Satisfies: HC Colloquia**

HC 407 Visual Rhetoric in Pop Music

2 HC Credit(s)

CRN: 40465 **Section** 033 SEM **MW 1200 - 1250**

Instructor(s): Brandy St. John

This colloquium will focus on analysis of the ways in which wardrobe, album artwork, music videos and more coalesce to create meaning and identity for popular musicians. We'll ask: what is being communicated in this image and how? We'll consider the intersections of art, expression, commerce, and branding and how visual rhetoric in popular music changes with cultural and media shifts. As your instructor, I'll draw on my twenty years of experience as a stylist in the music industry to elucidate the ways in which artists consciously and unconsciously create their image. The course will move chronologically, starting with pop icons of the fifties like Elvis, and moving up to modern day artists like Lil Nas X. Weekly discussions will focus on visual analysis of images using textual evidence to support our interpretations while considering the media and social contexts of the time period. Short readings will be taken from music magazines and websites, chosen to help us understand how an artist is perceived by the public. Weekly assignments will be in the form of visual collage: collecting images of a musician's wardrobe, make-up, poses, artwork, stage design, music videos and more. The collage will then be paired with a song and brief process memo that analyzes the visual rhetoric you've assembled. This writing will use textual evidence to support insightful interpretation that incorporates a dynamic mix of lenses like psychology, politics, and identity. For the final project, you'll choose an artist and create an original piece of visual rhetoric that is on-brand for that artist. This project can be: styling an outfit for your artist, writing a music video treatment, designing an album cover, or any visual project you successfully propose. This final project will include a twopage artist's statement about your visual choices and a summary of what you learned about visual meaning during our engagement with visual rhetoric in popular music. Satisfies: HC Colloquia

HC 407 Writing About Music

2 HC Credit(s)

CRN: 40579 Section 034 SEM TR 1200 - 1250

Instructor(s): Eric Hill

This class will focus on how we attempt to use words to discuss something that works outside of language. Does music defy description? Is it possible to employ concrete terms for something that, for many, remains abstract and/or subjective? Is writing about music like dancing about architecture? You will be asked to examine and respond to music and texts about music. Through in-class discussions, presentations, and assignments, you will discuss what you see as the values and limitations of these texts, as well as how they compare with your own written attempts to react to music. Much of the material you will be listening to and writing about will come from pieces that you bring in (some of it will be music that I subject you to). You will be writing about music through various forms of expression (description, review, analysis), explaining not only the characteristics of the music but also how context can affect your experience (live versus recorded, instrumental versus lyrics, visual components, etc.). You are not required to play an instrument or to know music theory, but we will go over some theoretical terms that may provide you with some basic vocabulary. **Graded:**

P/N. Satisfies: HC Colloquia

HC 407 The Holocaust in the Digital Age

2 HC Credit(s)

CRN: 37107 Section 400 online

Instructor(s): Katherine Hubler

A "virtual tour" of Anne Frank's hiding place. Conversations with 3-D avatars of actual Holocaust survivors. Tweets from now-deceased Jewish passengers of the ill-fated St. Louis cruise-liner, forced to return to Europe on the eve of WWII after being denied entry into Cuba, the US, and Canada. As the World War Two era fades deeper into the recesses of the 20th century and the last survivors of Nazi persecution approach their nineties, scholars and educators are turning increasingly to the digital to preserve evidence, raise awareness, and prompt sober reflection about the Holocaust. While the technologies have become more sophisticated, new forms of media have actually been central to efforts to record survivor testimonies and bring perpetrators to justice since the end of World War Two. This class explores the historical intersection of the Holocaust and new media. It will also analyze how social media, visualizations, virtual reality, and artificial intelligence are currently being used by Holocaust researchers and educators during a time when awareness about the Holocaust is fading and antisemitic incidents are on the rise. This is an Ecampus course. Tuition rates for Ecampus courses are different than on-campus courses and can be found at ecampus.oregonstate.edu/services/tuition. Satisfies: HC Colloquia

HC 407 Lady Detectives

2 HC Credit(s)

CRN: 38115 Section 401 online

Instructor(s): Clare Braun

From Agatha Christie's Miss Marple to Kristen Bell's Veronica Mars, women have solved some of the dastardliest crimes of the detective genre both on the page and on the screen. We will look at a variety of texts and films featuring lady detectives—some very ladylike indeed, some decidedly not—to examine the cross-sections between gender and genre. How do these detectives use their performance of gender to solve mysteries? How do these stories challenge, reinforce, and/or complicate traditional notions of gender and crime? This is an Ecampus course. Tuition rates for Ecampus courses are different than on-campus courses and can be found at ecampus.oregonstate.edu/services/tuition.

Graded: P/N. Satisfies: HC Colloquia

HC 407 The World Inside: Society and Emotions

2 HC Credit(s)

CRN: 40595 Section 403 online

Instructor(s): Terri Anderson

Are feelings innate and universal or are they socially created and historically and culturally determined? Emotions are generally seen as individually and privately experienced, but are actually deeply social. They are embedded in, constitutive of, and created by social interactions, social structures and institutions. This course will examine emotions from constructionist and interactionist perspectives. Our explorations will focus on contemporary American society, but will use several examples from other times and cultures to illustrate the socially constructed, experienced, and expressed nature of emotions. This is an Ecampus course. Tuition rates for Ecampus courses are different than on-campus courses and can be found at ecampus.oregonstate.edu/services/tuition. Satisfies: HC Colloquia

HC 407 / ENSC 407H

Introduction to Traditional Ecological Knowledge (TEK)

2 HC Credit(s)

Choose one section. These are cross listed, so you should only register for one.

ENSC 407H CRN: 39587 **Section** 400 **online HC 407 CRN**: 39586 **Section** 402 **online**

Instructor(s): Samantha Hatfield

The goal of this course is to understand Traditional Ecological Knowledge (TEK) and sustainability practices from a Native American perspective, focusing on the Pacific Northwest but also addressing other Tribes nationally. The emphasis will be on techniques the Siletz have implemented and continue utilizing, but we will also incorporate other techniques from tribal perspectives in local and national areas, as well as how these utilizations coincide with agencies on local, state, and federal levels. This class will focus on how state and federal guidelines, laws, and regulations affect and implement tribal policies and tribal members. This course promotes TEK as a viable sustainability technique and teaches students and community members about further understanding TEK, in cooperation through agencies and policies such as treaties and NAGPRA on Indigenous lands, traditional areas, and cultural practices. This is an Ecampus course. Tuition rates for Ecampus courses are different than on-campus courses and can be found at ecampus.oregonstate.edu/services/tuition. Satisfies: HC Colloquia

PH 407H The Weird World of Quantum Mechanics

1 HC Credit(s)

CRN: 34369 **Section** 001 SEM **F 1400 - 1450**

Instructor(s): Albert Stetz

Are photons real? Can you change the past by doing an experiment in the present? Can you kill Schrodinger's cat by looking at it? Is it true that a watched pot never boils? Can you send quantum information faster than the speed of light? Quantum mechanics is so weird, what is reality really like? These and many related questions have intrigued scientists since the birth of quantum mechanics almost a century ago. Much progress has been made, but there is a sense that we must drastically revise our understanding of reality, and no one is quite sure how to do that. These questions are partly philosophical and partly technical, but the technical part can be understood with a minimum of math and physics. In this course we will review the most bizarre aspects of quantum mechanics, look at the experiments that have been done to elucidate them, and discuss the philosophical ramifications. **Satisfies: HC Colloquia**

Winter 2022 Corvallis HC Electives

BA 161H Innovation Nation - Awareness to Action

2 HC Credit(s)

This course is shared with a section for COB Dean's Academy students. Honors students should register for section 019 and choose either section 010, 012, or 014.

CRN : 35423	Section 019	REC	F 0900 - 0950	Sandra Neubaum
CRN : 35415	Section 010	LEC	TR 1100 - 1150	Amy Neuman
CRN : 35418	Section 012	LEC	TR 1300 - 1350	Amy Neuman
CRN: 35421	Section 014	LEC	TR 1400 - 1450	Amy Neuman

First course in a two-course sequence. Begins a conversation on self-management, offering opportunities for active reflection on critical skill sets necessary for success in today's global market. Builds a foundation of entrepreneurial knowledge and gaining a competitive edge while becoming aware of your role in managing your own career. The section of BA 161H students take in Winter determines which section of BA 162H they will need in the Spring - instructors will help students match their winter and spring sections of the courses during class. This course is shared with a section for COB Dean's Academy students. Honors students should register for section 019 and choose either section 010, 012, or 014. 2 out of the 3 OSU credits earned will count toward Honors College requirements. RESTRICTIONS: For first-year students in the College of Business only. Satisfies: HC Elective

BA 213H Managerial Accounting

4 HC Credit(s)

This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001

CRN: 36946 **Section** 001 LEC **MW 1400 - 1550**

Instructor(s): Alan Fudge

Accounting information from the perspective of management users with an emphasis on data accumulation for product costing, planning, and performance evaluation and control. **This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001.** PREREQS: BA 211/211H. RESTRICTIONS: For Business majors/minors only. Minimum of sophomore standing required. **Satisfies: HC Elective**

BA 223H Principles of Marketing

4 HC Credit(s)

This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001

CRN: 36948 Section 001 LEC MW 1000 - 1150

Instructor(s): Ryann Reynolds-McIlnay

Covers concepts and principles used by marketing professionals. Designed explicitly for business majors, it's an introduction to the relationships between customers, products, and companies in a competitive and dynamically evolving marketplace. This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001. PREREQS: ECON 201/201H. RESTRICTIONS: For Business majors/minors only. Minimum of sophomore standing required. Satisfies: HC Elective

BA 275H Foundations of Statistical Inference

4 HC Credit(s)

This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001

CRN: 38161 **Section** 001 LEC **TR 1000 - 1150**

Instructor(s): Andy Olstad

An introductory course on statistical inference with an emphasis on business applications. Coverage includes descriptive statistics, random variables, probability distributions, sampling and sampling distributions, statistical inference for means and proportions using one and two samples, and linear regression analysis. **This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001.** PREREQS: MTH 111 OR MTH 241 OR MTH 251/251H. RESTRICTIONS: For Business majors/minors only. Minimum of sophomore standing required. **Satisfies: HC Elective**

BA 354H Managing Ethics and Corporate Social Responsibility

4 HC Credit(s)

This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001

CRN: 38163 Section 001 LEC TR 1200 - 1350

Instructor(s): Borbala Csillag

Introduces contemporary issues that business professionals face making ethical and socially responsible decisions in an increasingly fast-paced, transparent, and global environment. This is a Writing Intensive Course. **This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001.** PREREQS: (COMM 111/111H or COMM 114/114H or COMM 218/218H) and (WR 222 or WR 323 or WR 327/327H or HC 199). RESTRICTIONS: Business majors/minors only. Senior standing required. **Satisfies: HC Elective**

BA 375H Applied Quantitative Methods

4 HC Credit(s)

This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001

CRN: 38165 Section 001 LEC TR 1400 - 1550

Instructor(s): Andy Olstad

Introduces students to the basics of data science and data analytics for handling of large-scale databases. It provides an overview of the main data-analytic techniques and topics including data visualization, linear and nonlinear regression analysis, time series analysis and forecasting, classification, and clustering methods. This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001. PREREQS: BA 275. RESTRICTIONS: Business majors/minors only. Minimum of junior standing required. Satisfies: HC Elective

BA 390H Principles of Marketing

4 HC Credit(s)

This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001

CRN: 39588 Section 001 LEC MW 1000 - 1150

Instructor(s): Ryann Reynolds-McIlnay

Explores consumer and industrial markets, and activities and enterprises involved in distributing products to those markets. Develops an understanding of distribution processes, marketing problems, and marketing principles. **This course is shared with a section for COB Dean's Academy students. Honors students should register for section 001.** PREREQS: ECON 201/201H or AREC 250 or AEC 250 or AEC 251. RESTRICTIONS: For Business majors/minors only. Minimum of sophomore standing required. **Satisfies: HC Elective**

BI 370H Ecology 3 HC Credit(s)

CRN: 36336 Section 001 LEC TR 1200 - 1320

Instructor(s): Carmen Harjoe

The study of interactions between organisms and their biotic and abiotic environments at the population, community, ecosystem, and biosphere levels of organization. PREREQS: (BI 211/211H and BI 212/212H and BI 213/213H) or (BI 221/221H and BI 222/222H and BI 223/223H) or (BI 204 and BI 205 and BI 206). **Satisfies: HC Elective**

CBEE 212H Energy Balances

1 HC Credit(s)

CRN : 33943	Section 001	LEC	MF 1400 - 1450
CRN : 33944	Section 010	REC	W 1400 - 1450
CRN: 33945	Section 020	STU	T 1300 - 1350

Instructor(s): Jeff Nason

Energy balances, thermophysical and thermochemical calculations. **1 out of the 3 OSU credits earned counts toward Honors College requirements.** Lecture and recitation common with non-honors. PREREQS: MTH 252/252H. RESTRICTIONS: For Engineering students only. Minimum of sophomore standing required. **Satisfies: HC Elective**

CH 362H Experimental Chemistry I

3 HC Credit(s)

Register for the lecture and one lab. Contact Chemistry department to register.

CRN : 31763	Section 001	LEC	M 1600 - 1650
CRN : 31764	Section 010	LAB	TR 800 - 1120
CRN : 37285	Section 011	LAB	TR 1300 - 1620
CRN : 31765	Section 012	LAB	WF 1200 - 1520

Instructor(s): Neal Sleszynski & Amila Liyanage

Advanced integrated laboratory course for sophomore level chemistry majors and biochemistry and biophysics majors concentrating on organic synthesis, thermochemistry and spectroscopic methods of identification. Students learn first hand techniques of: vacuum distillation, oxygen bomb calorimetry, infrared spectroscopy, and 1-D and 2-D NMR methods. **Must contact Chemistry department to register.** PREREQ: CH 361/361H AND CH 335. CH 335 can be taken concurrently. RESTRICTIONS: For Chemistry and Biochemistry/Biophysics majors only. **Course Fee \$44.00. Fee is non-refundable.** Additional no-show-drop fee. Satisfies: HC Elective

CH 462H Experimental Chemistry II

3 HC Credit(s)

Register for both lecture and lab. **Contact Chemistry department to register**.

CRN : 31766	Section 001	LEC	W 1300 - 1350
CRN : 31767	Section 010	LAB	W 1400 - 1650
			E 1300 - 1650

Instructor(s): Christine Pastorek

Advanced integrated laboratory course for junior level chemistry majors concentrating on physical and analytical chemistry of polymers and materials. Students synthesize a synthetic rock, zeolite, and make PMMA, a polymer. Students learn first hand techniques of: PXRD, INAA, DSC, TGA, GPC, electrochemistry, reaction kinetics by flash photolysis, pulsed polarography and ASV. **Must contact Chemistry department to register.** PREREQ: CH 362/362H AND CH 441 AND (CH 324 OR CH 461/461H). CH 441 can be taken concurrently. CH 422 is recommended. **Course Fee \$44.00.** Fee is non-refundable. Additional no-show-drop fee. Satisfies: HC Elective

CHE 332H Transport Phenomena II

1 HC Credit(s)

Register for the lecture and the studio

CRN: 34151 **Section** 001 LEC **TR 1200 - 1250**

GRP MID

CRN: 34150 **Section** 010 STU **MW 1300 - 1350**

Instructor(s): Skip Rochefort

A unified treatment using control volume and differential analysis of heat transfer, prediction of heat transport properties, and introduction to heat transfer operations. Lecture is common with non-honors courses. **1 out of the 3 OSU credits earned counts toward Honors College requirements.** PREREQ: CHE 311 AND CHE 331/331H. RESTRICTIONS: Must be enrolled in the College of Engineering. **Satisfies: HC Elective**

CS 325H Analysis of Algorithms

4 HC Credit(s)

CRN: 35112 Section 001 LEC TR 1400 - 1550

Instructor(s): Juli Coffman

In this class, you will master algorithmic techniques such as dynamic programming and divide-and-conquer and learn how to argue that your algorithms are correct and fast. You will apply this knowledge to tackling problems from the International Collegiate Programming Contest. PREREQ: CS 261 AND (CS 225 OR MTH 231). RESTRICTIONS: Must be enrolled in the College of Engineering. Not for Computer Science Double Degree students. **Satisfies: HC Elective**

H 100H Introduction to Public Health

4 HC Credit(s)

CRN: 33946 Section 001 LEC TR 1000 - 1150

Instructor(s): Viktor Bovbjerg

This survey course covers the basic elements of public health and application of public health action, along with related complex ethical and political issues. Topics range from infectious disease outbreaks and control, to the role of diet and physical activity in chronic disease, to the intersection of emergency services and preparedness with public health. We will focus on experiential and tailored learning: several sessions will be in the field—at work sites, agricultural operations, public health agencies, and natural environments. A major element of the course is a student-directed exploration of a public health topic of interest to each student. **Course Fee: \$13. Satisfies: HC Elective**

HC 409 Conversants 1 HC Credit(s)

CRN: 30956 **Section** 005 PRAC

Instructor(s): Leanna Dillon

The INTO OSU Cultural Ambassador Conversant Program provides an opportunity for honors students to earn credit while participating in a mutual cultural exchange. Participating honors students commit to meeting on average one hour per week with their international partner, keep a log of the times and places they met and the topics discussed, and complete a 2 page reflections paper due at the end of the term. Program information including the application process, is available at https://intoosu.oregonstate.edu/volunteer#CACP-Volunteers. Students must meet with an HC advisor to complete a Learning Agreement. Applications must be submitted online no later than the end of week 1. **Graded: P/N. Satisfies: HC Elective**

HC 409 Civic Engagement

1 HC Credit(s)

CRN: 33708 **Section** 007 PRAC

Instructor(s): Leanna Dillon

The Center for Civic Engagement provides an opportunity for honors students to earn credit while participating in an ongoing community engagement project within the local community. Participating honors students commit to serving on average 2-3 hours per week within their project site, keep track of their service hours, and complete a 2 page reflection paper due at the end of the term. Additional information, including placement opportunities, is available at: https://sli.oregonstate.edu/cce. Students must meet with an HC advisor to complete a Learning Agreement and a CCE staff member to discuss placement opportunities. Placement must take place prior to the start of the term. **Graded:**

P/N. Satisfies: HC Elective

ME 383H Mechanical Component Design

1 HC Credit(s)

Register for the lecture and the lab

 CRN: 35301
 Section 001
 LEC
 TR 830 - 950

 CRN: 35302
 Section 010
 LAB
 F 1000 - 1150

Instructor(s): Bradley Camburn

Failure analysis and design of machine components. **1 out of the 4 OSU credits earned counts toward Honors College requirements. Lecture is shared with non-honors section.** PREREQS: ME 316 and ME 250 and ENGR 212/212H and ENGR 213. ME 250 can be taken concurrently. RESTRICTIONS: For Manufacturing, Mechanical, or Industrial Engineering majors only. Must be enrolled in the College of Engineering. Minimum of junior standing is required. **Satisfies: HC Elective**

ME 430H System Dynamics and Control

4 HC Credit(s)

CRN: 38182 Section 001 LEC MW 1000 - 1150

Instructor(s): Joseph Davidson

Modeling and analysis of linear continuous systems in time and frequency domains. Fundamentals of single-input-single-output control system design. PREREQS: ME 317/317H or (ECE 351 and ECE 352 and ENGR 212/212H). RESTRICTIONS: For Mechanical Engineering students only. Must be enrolled in the College of Engineering. Senior standing required. **Satisfies: HC Elective**

ME/NSE 312H Thermodynamics

4 HC Credit(s)

Manufacturing and Mechanical Engineering majors should register for ME 312H Nuclear Engineering majors should register for NSE 312H

 ME 312H CRN: 39596
 Section 001
 LEC
 TR 1000 - 1150

 NSE 312H CRN: 39598
 Section 001
 LEC
 TR 1000 - 1150

Instructor(s): Deborah Pence

Analyzes exergy destruction, machine and cycle processes, law of corresponding states, non-reactive gas mixtures, reactive mixtures, thermodynamics of compressible fluid flow. PREREQS: ME 311/311H or NSE 311/311H or NE 311/311H. RESTRICTIONS: Must be enrolled in the College of Engineering. Manufacturing and Mechanical Engineering majors/minors should register for ME 312H. Minimum of Junior standing required. Nuclear Engineering majors should register for NSE 312H. **Satisfies: HC Elective**

MTH 252H Integral Calculus

4 HC Credit(s)

Choose one lecture section. MTH 252H does not have a recitation section. That hour is built into the lecture.

CRN : 31768	Section 001	LEC	WF 1000 - 1150	Scott Peterson
CRN : 34262	Section 002	LEC	TR 1400 - 1550	Sara Clark
CRN : 35067	Section 003	LEC	TR 1200 - 1350	Sara Clark

The integral is the second big idea in calculus. In the same way that the derivative measures rate of change, the integral measures net change. Applications in physics, engineering and geometry are numerous. PREREQ: MTH 251/251H.

Course Fee \$10. Satisfies: HC Elective

MTH 254H Vector Calculus I

4 HC Credit(s)

MTH 254H does not have a recitation section. That hour is built into the lecture.

CRN: 32928 Section 001 LEC WF 1400 - 1550

Instructor(s): Scott Peterson

Vectors and geometry: coordinate systems, scalar product. Real-Valued Functions of Several Variables: partial and directional derivatives, gradient, extreme values. Multiple Integrals: change of coordinates, applications. Vector valued-functions: arc length and curvature of space curves, normal and tangential components of acceleration. PREREQ: MTH 252/252H. Course Fee \$10. Satisfies: HC Elective

MTH 255H Vector Calculus II

4 HC Credit(s)

MTH 255H does not have a recitation section. That hour is built into the lecture.

CRN: 32801 **Section** 001 LEC **WF 1400 - 1550**

Instructor(s): Hoe Woon Kim

Introduction to vector analysis: line integrals and work, conservative fields, surface integrals and flux, divergence, curl, and the theorems of Gauss and Stokes. Emphasis on geometric intuition, not just computation. Especially suitable for those with an interest in physics and engineering, as well as mathematics. PREREQ: MTH 254/254H. **Course Fee \$10**. **Satisfies: HC Elective**

MTH 256H Applied Differential Equations

4 HC Credit(s)

Choose one lecture section. MTH 256H does not have a recitation section. That hour is built into the lecture.

 CRN: 31769
 Section 001
 LEC
 WF 1200 - 1350
 Filix Maisch

 CRN: 34716
 Section 003
 LEC
 WF 1600 - 1750
 Filix Maisch

First order linear and nonlinear equations, and second order and higher order linear equations, Laplace transform, and applications appropriate for science and engineering. PREREQ: MTH 254/254H. **Satisfies: HC Elective**

MTH 264H Introduction to Matrix Algebra

2 HC Credit(s)

CRN: 36952 Section 001 LEC WF 1200 - 1350

Meets Weeks 1-5 Only

Instructor(s): Torrey Johnson

Introduction to matrix algebra: systematic solution to systems of linear equations; linear transformations; eigenvalue problems. **Meets Weeks 1-5 Only.** PREREQS: MTH 252/252H. MTH 254/254H is recommended. **Satisfies: HC Elective**

MTH 265H Introduction to Series

2 HC Credit(s)

CRN: 36953 **Section** 001 LEC **WF 1200 - 1350**

Meets Weeks 6-10 only

Instructor(s): Torrey Johnson

Convergence and divergence of numerical series, including geometric series. Series of functions. Power series and their analytic properties. Taylor series expansions and Taylor polynomials. **Meets Weeks 6-10 only.** PREREQS: MTH 252/252H. **Satisfies: HC Elective**

NSE/ME 312H Thermodynamics

4 HC Credit(s)

Manufacturing and Mechanical Engineering majors should register for ME 312H Nuclear Engineering majors should register for NSE 312H

 ME 312H CRN: 39596
 Section 001
 LEC
 TR 1000 - 1150

 NSE 312H CRN: 39598
 Section 001
 LEC
 TR 1000 - 1150

Instructor(s): Deborah Pence

Analyzes exergy destruction, machine and cycle processes, law of corresponding states, non-reactive gas mixtures, reactive mixtures, thermodynamics of compressible fluid flow. PREREQS: ME 311/311H or NSE 311/311H or NE 311/311H. RESTRICTIONS: Must be enrolled in the College of Engineering. Manufacturing and Mechanical Engineering majors/minors should register for ME 312H. Minimum of Junior standing required. Nuclear Engineering majors should register for NSE 312H. Satisfies: HC Elective

PSY 301H Research Methods in Psychology

4 HC Credit(s)

CRN: 39597 **Section** 001 LEC **TR 1400 - 1550**

Instructor(s): Raechel Soicher

Study of scientific methodology in psychology, including experimental and observational techniques. Topics include problem identification and hypothesis formation, research design, application of statistics, collection and interpretation of data, computer usage, and research report writing. PREREQS: PSY 201/201H and PSY 202/202H and ST 351/351H.

Satisfies: HC Elective

PSY 340H Cognitive Psychology

4 HC Credit(s)

CRN: 36954 **Section** 001 LEC **TR 1000 - 1150**

Instructor(s): Jason McCarley

We will explore theories and findings from cognitive psychology—the study of the mind—and consider what they tell us about real-world tasks such as driving, studying, making financial decisions, or giving eyewitness testimony. Along the way, we will recreate some classical experiments on attention, memory, and decision making, and read some cutting-edge research on the role of our mental processes in our everyday performance. RESTRICTIONS: Minimum of sophomore standing required. PREREQS: PSY 201/201H and PSY 202/202H. **Satisfies: HC Elective**

PSY 399H Honors Psychology Research

1 HC Credit(s)

CRN: 38203 Section 001 LEC M 1500 - 1550

Instructor(s): Juan Hu

Explore opportunities in research labs and develop essential research skills necessary to be a productive member of a research team. Discuss how undergraduate theses are completed in research labs. Document skills for graduate school and job applications. **Graded: P/N. Satisfies: HC Elective**

Winter 2022 Corvallis HC Thesis options

HC 408 Thesis Stage 1: Plan First-Year Students, Last Name H-N Choose one section				1 HC Credit(s)
CRN : 39591	Section 004	WS	M 1600 - 1650	Jeremy Townley
CRN : 39592	Section 005	WS	T 1500 - 1550	Kassena Hillman
CRN : 39603	Section 006	WS	W 1800 - 1850	LeeAnn Baker
CRN: 39602	Section 007	WS	T 1400 - 1450	Jeremy Townley
CRN : 39593	Section 008	WS	F 1100 - 1150	Eric Hill

HC 408 Stage 1 will introduce you to the Thesis Success in Stages (TheSIS) process, as well as to some of the research happening at OSU and how undergraduate students can take part. You'll explore ways that your own interests, academic or otherwise, can be a springboard to a thesis topic, and discover the benefits of doing a thesis that go well beyond your time at OSU. By the end of the term, you'll have a (flexible) plan of action in place for the years ahead. A required course for all first-year and transfer students to be taken during the first three terms in the Honors College. **Graded: P/N.**

Satisfies: HC Elective / Thesis

HC 408 Thesis Stage 2: Explore & Build

1 HC Credit(s)

Choose one section

CRN: 32800 **Section** 001 HYB **W 1700 - 1750**

Meets weeks 2, 4, 6, and 10 only

CRN: 40597 **Section** 010 HYB **W 1600 - 1650**

Meets weeks 2, 4, 6, and 10 only

Instructor(s): Kassena Hillman & Andy Karplus

Thesis Stage 2: Explore & Build will guide you through the second stage of the Thesis Success in Stages (TheSIS) process. In this class you will explore the many resources at the HC and OSU to help you find a mentor and a project, build strategies for a successful thesis experience, learn the components of the thesis, and plan out your next steps. You will also hear from students and faculty with recent experience in the thesis process. You do not need to have a thesis idea to be in Stage 2. This course is a hybrid course that consists of weekly online assignments and one hour in-person class meetings weeks 2, 4, 6, & 10. This course will be team taught with an HC Academic Advisor and HC faculty. Meets weeks 2, 4, 6, and 10 only. PREREQ: Prior completion of Thesis Stage 1 as outlined at honors.oregonstate.edu/thesis. Graded: P/N. Satisfies: HC Thesis/Research/Projects

HC 408 Thesis Stage 2: Explore & Build

1 HC Credit(s)

CRN: 38590 Section 400 online

Instructor(s): Kassena Hillman

Thesis Stage 2: Explore & Build will guide you through the second stage of the Thesis Success in Stages (TheSIS) process. In this class you will explore the many resources at the HC and OSU to help you find a mentor and a project, build strategies for a successful thesis experience, learn the components of the thesis, and plan out your next steps. You will also hear from students and faculty with recent experience in the thesis process. You do not need to have a thesis idea to be in Stage 2. This is an Ecampus course. Tuition rates for Ecampus courses are different than on-campus courses and can be found at ecampus.oregonstate.edu/services/tuition. PREREQ: Prior completion of Thesis Stage 1 as outlined at honors.oregonstate.edu/thesis. Graded: P/N. Satisfies: HC Thesis/Research/Projects

Thesis Stage 3: Commit HC 408

1 HC Credit(s)

CRN: 34651

Section 002

WS R 1600 - 1750

Meets weeks 3 and 7 only

Instructor(s): Rebekah Lancelin & Susanne Stieger-Vanegas

Thesis Stage 3: Commit will guide students through Stage 3 of the Thesis Success in Stages (TheSIS) process, Commit. We will cover the process of developing a thesis topic, finding a thesis mentor, creating a thesis statement, writing a thesis proposal, and developing a research plan. The course will require participants to turn in a completed thesis proposal signed by a thesis mentor, which is the end goal of the Commit stage and a required component of the TheSIS process in the Honors College. Meets weeks 3 and 7 only. PREREQS: Prior completion of TheSIS Stages 1 & 2 as outlined at honors.oregonstate.edu/thesis. Graded: P/N. Satisfies: HC Thesis/Research/Projects

Thesis Stage 4: Compose & Complete HC 408

1 HC Credit(s)

CRN: 34145

Section 003

WS

F 1400 - 1550

Meets weeks 2, 4, and 6 only

Instructor(s): Beau Baca

Thesis Stage 4: Compose & Complete will guide students through the final stage of the Thesis Success in Stages (TheSIS) process, Compose & Complete. The goals of this stage are the completion of a thesis draft, the preparation for the thesis defense, and the design of a thesis poster. Students need to have completed a significant amount of their research and be prepared to begin writing the thesis draft. The course is largely discussion based, with time for writing workshops built in; therefore, this course is relevant for students in all disciplines. Meets weeks 2, 4, and 6 only. PREREQS: Prior completion of TheSIS Stages 1, 2, & 3 as outlined at honors.oregonstate.edu/thesis. Graded: P/N. Satisfies: HC Thesis/Research/Projects